Message

From: Kirsten Rasanen [@google.com]

Sent: 8/1/2018 3:04:38 PM

To: Serena Shih [______@google.com]
CC: Lei Zhang [_____@google.com]; playapps [_______@google.com]

Subject: Re: KR Impressions of India [Long Read]

Yes, a lot of great insights! It is important to note that our sample set was urban users (with various levels of technical sophistication) so not necessarily indicative of the *entire* population. The Cupcake team (James and Paul B.) were there as well and noted that, while Play usage for app acquisition is increasing in this area (yay!), P2P app sharing continues here and in other regions (I believe Africa was mentioned as a next market) so efforts to partner with the P2P guys continue to be beneficial.

On the discovery piece - you're right, Lei, this is not an EM-specific issue. I was actually super happy just to hear that these users know about and use Play Store for anything given previous notion that Play was basically irrelevant in India.

On Wed, Aug 1, 2018 at 1:21 AM Serena Shih < @google.com > wrote: Have been meaning to go to India for awhile so this is an especially interesting read!

Echo Lei on the SHAREit/Xender usage. We know that app sharing only accounts for less than 10% of total transfer but we were under the impression that a lot of app discovery is done through the sharing apps themselves, by prompting user A of the installable apps on user B's device. Interesting (and great) to know that Play is still the common preferred installation source. Makes more sense that both apps are seeking to focus on becoming video discovery platforms.

Thanks for sharing Kirsten!

On Wed, Aug 1, 2018 at 12:47 PM Lei Zhang < <u>@google.com</u>> wrote: Love it! And obviously this is already very different to when we visited India last year...

The low data cost is known but still shocking when comparing to ATT. It's quite different to what we've experienced last time that that hey don't use ShareIt or Xender for apps sharing - at least when buying a phone the retailers did use P2P to bulk transfer apps. Maybe our cupcake project should target that use case? And Btw, I feel the observation of "they don't use the Play Store for any kind of app discovery at all" is not only applicable to India. The only app discovery for my family - I know a very small sample size - is through word of mouth and youtube. This is true for both iOS and Android (wife is iPhone user).

Thanks for sharing Kirsten!

Lei

On Tue, Jul 31, 2018 at 5:39 AM Kirsten Rasanen < @google.com > wrote: Hi All,

I sent this out to the play-apps-bd@ alias this morning and a few suggested I share with the broader group. For many of you, this may be old news, so feel free to read only if you're interested in a first-time visitor's view of (a very small slice) of India and our business there. :-)

EXHIBIT 8539

K.
Forwarded message
From: Kirsten Rasanen < @google.com>
Date: Mon, Jul 30, 2018 at 8:06 AM
Subject: KR Impressions of India [Long Read]
To: play-apps-bd < <u>@google.com</u> >
Cc: Purnima Kochikar < @google.com >, Kunal Soni < @google.com >, Karan Gambhir
<u>@google.com</u> >, Kanan Rai ≤ <u>@google.com</u> >, Sharan Tulsiani
 , Ka Kui Cheng Ye < agoogle.com, Ashnil Dixit
">, Parul Tyagi < @google.com">">, Parul Tyagi < @google.com
Correa < @google.com>, Hidenori Fujii < @google.com>

This email is a long one, so feel free to read at your leisure or just look at a few photos at the end...:-)

TL;DR: I spent 5 days in India and it blew my mind. As our Netflix India partner said, "The pace of change here is so fast that by the time we figure it out back at HQ, everything has changed again." Users and developers alike are evolving at a breakneck pace. Almost all the things I thought I knew about the market are wrong. We, Play and Android, need to work much harder to keep up. So much potential! We must act fast!

Hi Team,

Last week I spent five days in Delhi for an "India Immersion" experience along with 40 or so other folks from Play product, eng, merch, dev marketing and BD. There are many adjectives I could use to describe the experience: Amazing, exhausting, enlightening, exhilarating, depressing, surprising and thought-provoking are a few that spring to mind.

The <u>agenda</u> was intense. Highlights included a trip to buy a phone at a retailer, visiting with locals at home, a train station (with Google Station Wifi) and Delhi University, a day in Old Delhi and lots of conversation with developers, carriers and OEMs to understand the Indian market dynamic. It was a great opportunity to connect with colleagues, use an Android Go device (decent phone for \$70 but slow data and a crap camera made it less great) and sweat through my clothes within minutes every day.

First and foremost, this trip was a lot of **myth-busting** for me. The common memes that I've heard and internalized about India are, quite frankly, out of date and changing rapidly. I'm still processing the experience, but I wanted to share a few impressions with you while still fresh in my mind, particularly related to the smartphone users and app developers that we met. This just scratches the surface but here are a few of the more relevant things that I learned.

USERS

Contrary to all we've been told, data is <u>NOT</u> super expensive and scarce any more. About 20 months ago, Jio entered the market and slashed data prices dramatically. First, they spent \$32B to build a nation-wide 4G data network. Then, they gave users *free* data to get them on board. When they began charging for data, Jio's super affordable data plans forced the rest of the carrier market (Airtel, Vodafone, Idea) to follow suit and offer similar pricing. As a result, wifi, even free wifi, isn't a thing. FT has a good write up on the Jio story if you want more detail.

Most of the users we spoke to had a data plan that offered **1.5GB of data** *per day* for ₹199 (\$2.90 USD) per month. Comparing that to my 5GB <u>per month</u> for \$80, I'm wondering what AT&T is doing with all my money and why I often only have one bar of service...

Users <u>DO</u> know what the Play Store is and they actually use it... but only for installs. Every user we spoke with (I personally talked to 10 or so, the group met at least 100 overall), knew the Play Store and used it for many (most) of their app installs. But, they <u>don't</u> use the Play Store for any kind of app discovery at all. All their new apps and game suggestions came from friends, family, or social media (sometimes ads). They just used Play to install.

Indian users <u>DO</u> use Shareit or Xender ... but not really for apps or games. Users all have Shareit, but mostly used it for transferring videos and photos from friends and *sometimes* for large app transfers (ahem, PubG). Despite the cheap data situation, data isn't always reliable or fast and sometimes P2P sharing is just more efficient, but it's not the first choice for app acquisition (see above).

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The 'shopkeeper' (at least in urban Delhi) isn't as powerful as we thought. NBU lore has it that shopkeepers set up devices. create a GAIA that they never share with the buyer, install all the users' apps and give them a bunch of music and movie content as part of the on-boarding process. This seems to be changing. At least half of the users we chatted with had bought the phone at a shop and set it up themselves at home. They didn't get movies or music from the shop because "you can just stream it from YouTube" thanks to low cost data. However, the idea of a email-based phone login (GAIA) was still a bit of a mystery with users saying "I guess I have one for my phone but don't know what it is" and "I know I need an email for Facebook, but I don't really use it for anything else." The exception was the student population who used email for communicating with professors or internship opportunities.

Indian users rarely update their apps. This one is true. Most of the users we spoke with said they didn't actively update apps and usually only did so when prompted many times via notification or if the app "made them" (eg. WhatsApp requires update for continued service. Given the prevalence and reliance on WhatsApp, users keep it up to date religiously). Our default of "update on wifi only" means most users never update because, Wifi really isn't a thing.... Interestingly, one developer, Times of India, has built a WhatsApp-style update mechanism (block access until updated), but hasn't deployed saying that "WhatsApp is a monopoly, they can do this with no risk. We have a lot of competitors so we're afraid to launch something this aggressive....'

WhatsApp, Facebook, Instagram, YouTube and... that's pretty much it. Most users spoke about these four apps and not much else. Of the few other apps mentioned or seen on devices, B612 (very popular photo editing app), Duolingo (to practice English), Swiggy (food ordering) or UC Browser (pre-installed) were most frequent.

India users don't play games (except PubG) and they don't pay for anything. This one was interesting. There seems to be a social stigma about gaming as frivolous or a waste of time except when it's used as a mechanism of social connection. But, PubG is becoming a big thing, at least among young men, with many saying they played with friends and to unwind at the end of the day. The opportunity to use select titles like PubG to break the gaming stigma is something to think about. Viral distribution is very powerful here despite infrastructure hurdles. True story: Installing the 1.6GB PubG game on my Go device over Jio data took two hours and stalled several times - this is one app that Shareit comes in handy for!

Most of the girls and women we spoke to had played Candy Crush, but many had uninstalled it saying that it 'became boring' or 'was getting addictive' or they 'needed to make space'. Another game we heard about a bunch is Ludo King, which is a digital version of a traditional board game played among families. This seemed maybe more acceptable given the tradition involved?

We asked every user who played games if they'd ever bought anything in a game. Without deviation, none said they would ever buy anything in a game.

DEVELOPERS

We spent one day with several top developers (Myntra, Ludo King, Netflix, Times of India, Airtel, Nokia, Shareit and others), hearing their perspective on the market, users' relationship with devices, Google and Play. Most of what we heard is a familiar global refrain, but there were a few unique issues.

Voice is becoming more and more important. Language is coming alive in unexpected ways in India as technology is enabling users to more easily interact with devices and services via voice. For a country with huge variety of language and low literacy rates, voice is powerful and democratizing. Many users keep their phone language set to English rather than their native language (there are 22 official languages in India) even if they aren't particularly proficient as a symbol of status. For many, it seemed much much easier to speak a guery in Hindi than to try to type or translate to English.

With data prices dropping and market sophistication increasing, the value exchange of the pre-install has shifted. Developer apps on device used to be a value add for OEMs in selling devices and they would pay developers for the privilege of including their app on a new device. Now that data is cheap and users understand how and where to get the apps they want, developers find that the dynamic has shifted and OEMs are charging them for out of box placement.

Play Store offers little value for app discovery (see above) + user dynamic (install, uninstall, re-install... etc) means devs must pay for UA over and over. Even with abundant data, many users still have limited on-device storage. Mid-level devices have 16-32GB of storage, entry-level devices usually have 8GB. This means a constant cycle of installing and uninstalling to use task-specific apps. Since the Play Store does little (as of yet) to aid discovery or rediscovery, our value prop is limited to that of a data pipe and app version management platform (if users update!).

Our multi-platform approach continues to be confusing for developers. During a developer panel, Myntra asked how they should choose between PWA, AMP, Instant Apps, and Go or lite apps. Many of you know that Myntra is a super invested dev and they're willing to try all our new technologies. Despite having their own performance data, they still aren't sure where Google is

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investing and asked for clarity on where they should continue to focus. We continue to disappoint them with non-answers and platitudes about "open platforms" and "developer choice" to avoid favoring any of our products. We need to fix this.

FOP gap remains a pain point for users and developers. Thanks to <u>demonetization</u>, more Indian citizens have bank accounts (and more have credit cards too) than ever before. But, Play does not yet support direct debit or PayTM (top payment wallet) the primary payment mechanisms after cash on delivery. As users become more comfortable paying online, Play can be there, but we must make it easy (possible!) for Indian users to pay. Developers feel this pain acutely.

Conclusion: Some of you hail from India or places similar and some have visited. For those who don't or haven't, all I can say is -GO THERE. We talk a lot about the "Next Billion Users" and "Emerging Markets" but I can truly say that before this trip, I had no idea what we were *really* talking about. India is not just a country with a lot of people and huge potential. It is 29 states with 22 languages. It is a myriad of economic and social strata which we loosely group into India 1, India 2 and India 3, but the diversity of experience goes well beyond labels and languages. For me, this trip really opened my eyes to both the immense possibility and the long, long road ahead for Android and Play in helping Indian users and developers connect to each other and the rest of the world.

Huge thanks to Kunal, Karan, Sharan, Kanan, Anuj, Parul, Ka Kui and Ashnil for a fantastic, eye-opening program.

I look forward to my next visit!

K.

A few photos of our adventures!

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